

## POTOMAC RIVER BASIN

01660500 BEAVERDAM RUN NEAR GARRISONVILLE, VA

**LOCATION.**--Lat. 38°30'25", long 77°25'46", Stafford County, Hydrologic unit 02070011, on left bank 3.4 miles upstream from mouth and 2.2 miles north of Garrisonville.

**DRAINAGE AREA.**--12.7 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

**PERIOD OF RECORD.**--May 1951 to June 1957, and March 1997 to current year.

**GAGE.**--Water stage recorder. Datum of gage is 150.43 ft above sea level. May 1951 to June 1957, at site 500 ft. upstream at same datum.

**REMARKS.**--No estimated daily discharges. Records fair. Flow regulated by Lunga Reservoir 2.5 mi upstream, capacity 420 acre-ft. Statistics of monthly mean data and summary statistics for water years 1951\*\*, 1952 - 1956, 1957\*\* (unregulated flow) are available in previous data books, water years 1991 - 1998.

**EXTREMES FOR CURRENT YEAR.**--Maximum discharge, 229 ft<sup>3</sup>/s, Sept. 3, gage height, 2.48 ft; minimum discharge, 0.16 ft<sup>3</sup>/s, Aug. 27, gage height, 0.67 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.0	1.6	2.0	2.3	3.1	3.7	1.9	2.0	1.1	1.5	5.4	2.4
2	3.4	3.2	2.1	2.4	3.1	3.4	1.6	1.8	1.3	1.1	4.0	9.4
3	3.1	2.6	2.3	2.1	3.3	3.3	1.8	1.5	1.6	1.1	3.4	35
4	3.7	1.5	2.4	3.6	3.5	3.4	3.8	1.5	.98	2.4	8.3	20
5	3.5	1.8	2.5	4.8	3.6	3.5	2.7	1.4	.93	1.6	12	12
6	3.3	2.0	2.7	2.9	3.7	3.3	2.0	1.2	2.1	1.6	9.9	7.0
7	3.0	2.0	2.4	2.6	4.1	3.4	1.9	1.1	1.6	1.6	10	4.6
8	3.3	1.8	2.2	2.7	4.1	3.4	2.9	.98	1.2	1.7	7.6	3.3
9	3.3	1.7	2.4	2.6	4.4	3.4	9.6	.77	1.1	1.6	5.3	2.5
10	4.0	2.1	4.0	4.0	4.2	3.4	3.4	.67	1.4	2.2	4.5	2.0
11	3.5	2.0	3.6	3.7	4.8	3.5	2.4	.85	1.2	3.0	3.1	1.2
12	2.9	2.1	2.6	2.8	4.2	4.4	2.2	1.1	1.2	1.8	2.7	.84
13	3.0	2.0	2.4	2.5	3.7	3.7	1.9	1.2	1.6	1.7	2.0	.73
14	3.0	2.3	10	2.6	4.3	4.0	1.9	1.5	1.7	2.0	1.8	.79
15	3.2	1.9	4.6	2.6	3.8	4.0	1.9	1.1	2.4	16	1.2	.87
16	3.5	1.7	2.9	2.8	3.6	2.3	2.0	.94	2.3	2.1	.90	1.2
17	3.4	2.1	2.6	2.6	3.0	1.9	9.2	.86	3.9	1.2	.87	.82
18	3.4	2.2	2.5	2.3	4.5	1.6	15	.96	7.7	.75	1.3	.56
19	3.2	2.3	2.3	2.3	5.1	1.4	7.6	.97	5.4	.69	1.5	2.0
20	4.7	2.5	2.4	2.2	4.0	1.3	3.9	1.2	2.2	9.8	1.3	1.7
21	3.9	2.4	2.5	2.2	3.7	7.5	15	1.3	1.6	2.1	1.1	1.1
22	3.4	2.3	2.7	2.3	3.2	6.0	11	4.3	3.3	1.1	.95	.83
23	3.1	2.3	2.7	2.1	3.0	3.4	4.4	2.2	1.8	.95	.92	.76
24	1.2	2.4	2.5	1.9	3.1	2.4	3.0	1.3	1.4	1.0	3.8	.79
25	1.3	2.6	2.3	2.4	3.4	2.1	15	1.1	1.2	1.2	3.1	7.6
26	1.3	3.7	2.2	2.0	2.9	2.0	7.8	1.0	1.1	1.2	.75	23
27	1.4	4.9	2.2	2.2	3.7	2.4	4.5	.84	1.3	1.3	.73	16
28	1.4	2.9	2.2	3.8	9.4	3.7	3.4	1.1	2.1	4.0	1.0	11
29	1.7	2.2	2.4	2.9	4.4	2.8	2.9	1.5	2.9	9.5	.93	7.5
30	1.8	2.0	2.4	3.4	---	2.3	2.5	1.1	3.9	7.3	1.4	5.0
31	1.6	---	2.4	3.6	---	1.9	---	1.0	---	7.3	2.3	---
TOTAL	90.5	69.1	87.4	85.2	114.9	98.8	149.1	40.34	63.51	92.39	104.05	182.49
MEAN	2.92	2.30	2.82	2.75	3.96	3.19	4.97	1.30	2.12	2.98	3.36	6.08
MAX	4.7	4.9	10	4.8	9.4	7.5	15	4.3	7.7	16	12	35
MIN	1.2	1.5	2.0	1.9	2.9	1.3	1.6	.67	.93	.69	.73	.56

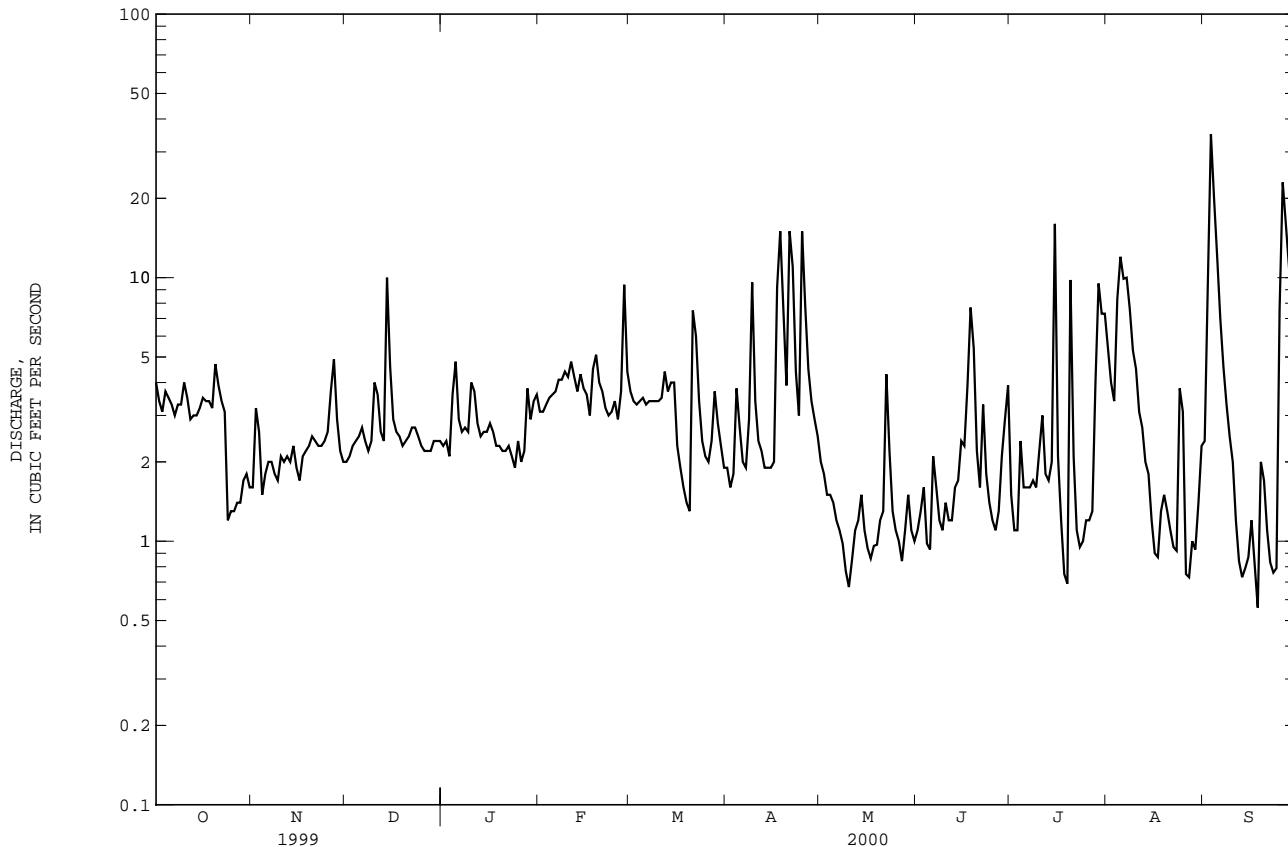
## 01660500 BEAVERDAM RUN NEAR GARRISONVILLE, VA--Continued

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997\*\* - 2000, BY WATER YEAR (WY) [REGULATED, UNADJUSTED]

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	4.54	5.96	4.84	10.1	25.9	17.8	12.2	9.85	6.75	4.67	3.75	4.58
MAX	6.29	10.4	7.54	23.4	70.8	46.4	25.0	25.0	14.7	8.51	7.32	6.40
(WY)	1999	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998
MIN	2.92	2.30	2.82	2.75	3.78	3.19	1.92	1.30	2.12	1.88	1.97	2.05
(WY)	2000	2000	2000	2000	1999	2000	1999	2000	2000	1999	1997	1997

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR	FOR 2000 WATER YEAR	WATER YEARS 1997** - 2000
ANNUAL TOTAL	1066.95	1177.78	
ANNUAL MEAN	2.92	3.22	9.08
HIGHEST ANNUAL MEAN			20.5
LOWEST ANNUAL MEAN			3.22
HIGHEST DAILY MEAN	19 Sep 16	35 Sep 3	250 Feb 5 1998
LOWEST DAILY MEAN	.72 May 5	.56 Sep 18	.56 Sep 18 2000
ANNUAL SEVEN-DAY MINIMUM	.91 May 9	.83 Sep 12	.83 Sep 12 2000
INSTANTANEOUS PEAK FLOW		229 Sep 3	276 Feb 5 1998
INSTANTANEOUS PEAK STAGE		2.48 Sep 3	2.74 Feb 5 1998
INSTANTANEOUS LOW FLOW		.16 Aug 27	.16 aMay 5 1999
ANNUAL RUNOFF (CFSM)	.23	.25	.72
ANNUAL RUNOFF (INCHES)	3.13	3.45	9.72
10 PERCENT EXCEEDS	4.4	5.2	19
50 PERCENT EXCEEDS	2.4	2.4	4.0
90 PERCENT EXCEEDS	1.4	1.1	1.5

\*\* Partial water year.  
 a Also Aug. 27, 2000.



## POTOMAC RIVER BASIN

01660500 BEAVERDAM RUN NEAR GARRISONVILLE, VA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--March 1997 to current year.

REMARKS.--Collection of suspended sediment was discontinued at the end of calendar year 1999.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	SAMPLE TYPE	BARO-	DIS-	SPE-	OXYGEN,	PH	NITRO-					
			METRIC	CHARGE,			DIS-	WATER	GEN,				
		TEMPER- ATURE WATER (DEG C) (00010)	TEMPER- ATURE AIR (DEG C) (00020)	PRES- SURE OF HG) (00025)	INST. MM PER SECOND (00061)	CON- FEET PER SECOND (00095)	OXYGEN, DIS- SOLVED (US/CM) (00095)	(PER- CENT SOLVED (MG/L) (00300)	SOLVED (00301)	FIELD SATUR- ATION (00400)	WHOLE ARD UNITS (00608)	AMMONIA DIS- SOLVED (MG/L AS N)	
OCT 19...	0830	ENVIRONMENTAL	12.3	17.5	753	2.9	44	10.2	99	6.9	<.020		
NOV 23...	0820	ENVIRONMENTAL	12.0	15.5	761	2.4	47	8.0	100	6.9	<.020		
JAN 10...	0830	ENVIRONMENTAL	5.6	10.5	744	2.4	26	8.6	100	7.1	.086		
FEB 23...	0830	ENVIRONMENTAL	4.6	4.5	767	3.4	61	12.5	100	6.9	.029		
MAR 21...	0800	ENVIRONMENTAL	7.2	7.5	759	5.7	65	10.3	101	7.2	.022		
APR 18...	0745	ENVIRONMENTAL	12.5	11.3	752	9.0	52	8.2	99	6.7	<.020		
MAY 24...	0830	ENVIRONMENTAL	17.9	19.0	744	1.5	59	7.8	76	7.0	.044		
JUN 15...	0830	ENVIRONMENTAL	21.5	20.0	754	2.4	61	8.2	85	7.1	.064		
JUL 18...	0830	ENVIRONMENTAL	22.1	23.5	754	.74	63	7.9	91	7.2	.034		
AUG 24...	0845	ENVIRONMENTAL	20.9	22.5	754	1.5	50	9.4	101	6.9	.025		
SEP 19...	0845	ENVIRONMENTAL	17.5	19.5	750	1.1	58	8.9	93	7.2	<.020		
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DATE		NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO <sub>2</sub> +NO <sub>3</sub> DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS TOTAL (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	SEDI- MENT, DIS- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- MENT, SUS- PENDED (T/DAY) (80155)	COLI- FORM, FECAL, 0.7 PENDED (COL / 100 ML) (31625)	E. COLI WATER TOTAL UREASE (100 ML) (31633)
OCT 19...	<.010	.35	.31	.079	.015	E.003	<.010	5	.04	35	42		
NOV 23...	<.010	.17	.23	<.050	.031	.006	<.010	1	.01	K11	K11		
JAN 10...	<.010	.23	.33	.117	.008	E.003	<.010	--	--	K3	K2		
FEB 23...	<.010	.18	.24	.136	.010	<.006	<.010	--	--	K5	K4		
MAR 21...	<.010	.15	.33	<.050	.041	E.005	<.010	--	--	K110	K98		
APR 18...	<.010	.20	.33	<.050	E.036	.012	<.010	--	--	K480	K480		
MAY 24...	<.010	.25	.35	.093	.018	.008	<.010	--	--	44	K42		
JUN 15...	<.010	.26	.33	.169	.019	.007	<.010	--	--	220	210		
JUL 18...	<.010	.21	.28	.106	.018	E.004	<.010	--	--	83	99		
AUG 24...	<.010	.20	.23	.092	.013	E.003	<.010	--	--	100	75		
SEP 19...	<.010	.17	.23	.057	.013	.007	<.010	--	--	110	70		

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